

Work Order ID 102924

June-12-13 9:16:50 AM

647.9413
B102924

102924

Page 1

Item ID: 647.9413

Accept

N900040100

Setup

Start

NS1

Revision ID:

Stop

NS2

Item Name: Deflector Lower, Half

Start Date: 6/11/13 Start Qty: 44.00

44

Cust Item ID:

Required Date: 6/11/13 Req'd Qty: 44.00

44

Customer:

Reference:

Approvals: Process Plan: M65

Date: 13-06-13

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr								
647.9400	A								
100	Cut blanks as per folio	0.00							
100									
Bandsaw	Memo	0.00							
Jcaspa Bandsaw	CUT BLANK AT 27.625"								
110	HAAS CNC VERTICAL MACHINING #1	0.00							
110									
HAAS	Memo	0.00							
HAAS CNC vertical machine #1	I-Machine per folio FB185 DWG REV: A FOLIO REV: AA								
	2- deburr and break all sharp edges								

52 ♂ DR/B.A
06/26/13

045
08
9-09

D.A 13/07/09
M. 13/07/12

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____	DISPOSITION			AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework	Scrap	Use-as-is	Skid-tube	Crosstube	Water Jet	Engineering		
NCR No. _____	Suspected	Unapproved		Machining	Small Fab	Prod. Eng. Coor.	Quality		
				Thermoforming	Finishing	Rec/Store/Packaging	Other		
				Large Fab	Composite	Supplier			

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General											
Bending	Bend	Folio/Program	Outside Dimensions	Pressure/Forced								
Centre Not Concentric	BOM/Route	Grain	Over/Under tolerance	Set-up								
Cracks	Broken/Damage/Defect	Hardware	Part Incorrect	Temperature/Cure								
Crimp/Kink/Ripple/Wave	Burrs	Inspection Incomplete/Unqualified	Part Lost/Missing	Weld								
Cuffs	Contamination	Instructions Incomplete/Unclear	Part Moved	Wrong Stock Pulled								
Crushing	Countersink	Misaligned/off center	Positioned Wrong									
Heat Treat	Cut Too Short	Mislabeled	Power Loss/Surge									
Inspection Strip in Tube	Drawing	Misread		Other								
Marks/Chatter	Drill Holes	Off-set										
Turning Sequence	Finish	Out of Calibration										
Wave/Twist in Tube	Fit/Function	Out of Sequence										

Work Order ID 102924

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June-12-13 9:16:50 AM

Item ID: 647.9413

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Deflector Lower, Half

Start Date: 6/11/13 Start Qty: 44.00

44

Cust Item ID:

Required Date: 6/11/13 Req'd Qty: 44.00

44

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

QC2- Inspect parts off machine FAI/FAIB

0.00

B. 13/07/09

52

DAS
08
289

120

QC

Quality Control

130

QC8- Inspect parts - second check

0.00

DP 23.7.15

52

130

QC

Quality Control

131

Memo

0.00

52 23.7.12

131

HandFinish

Hand Finishing

Memo

0.00

CLEAN AND REMOVE ALL PART MARKING

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____	DISPOSITION			AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General			
Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>
Centre Not Concentric <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Set-up <input type="checkbox"/>
Cracks <input type="checkbox"/>	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>
Crimp/Kink/Ripple/Wave <input type="checkbox"/>	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Weld <input type="checkbox"/>
Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>
Crushing <input type="checkbox"/>	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>	
Heat Treat <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	
Inspection Strip in Tube <input type="checkbox"/>	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>		
Marks/Chatter <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>		
Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>		
Wave/Twist in Tube <input type="checkbox"/>	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>		

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June-12-13 9:16:50 AM

Item ID: 647.9413

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Deflector Lower, Half

Stop

NS2

Start Date: 6/11/13

Start Qty: 44.00

44

Cust Item ID:

Required Date: 6/11/13

Req'd Qty: 44.00

44

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140 *140* Outsource4	Outsource process-Anodize per QSI017 4.1.10.1	0.00							10/07/24
Outsource process - Anodize	Memo Issue P/O to ATG : <u>20678</u>	0.00							
	1- Black Anodize as per Dwg 647.9400								
	Certification of Conformity is required								
150 *150* Packaging	Receive & Inspect for Damage & Mat'l Certs	0.00							52x SP 13-8-23
Packaging	Memo	0.00							
155 *155* QC	QC5- Inspect part completeness to step on W/O	0.00	AS 27 B&23						SO
Quality Control	Memo	0.00							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
Part No. _____			Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
NCR No. _____										

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear		General													
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled	<input type="checkbox"/> Other										

Work Order ID 102924

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June-12-13 9:16:50 AM

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Cust Item ID:

Required Date: 6/11/13 Req'd Qty: 44.00

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Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

180

Identify as per dwg & Stock Location: MF

0.00

180

Packaging

Packaging

Memo

0.00

IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV

190

QC21- Final Inspection - Work Order Release

0.00

190

QC

Quality Control

Memo

0.00

52x 10.13.08-23

13/9/38

AB630

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____	DISPOSITION				AGAINST DEPARTMENT/PROCESS			
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear		General									
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Bend	<input type="checkbox"/> Folio/Program	<input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Pressure/Forced							
	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Set-up							
	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Hardware	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Temperature/Cure							
	<input type="checkbox"/> Burrs	<input type="checkbox"/> Inspection Incomplete/Unqualified	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Weld							
	<input type="checkbox"/> Contamination	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Moved	<input type="checkbox"/> Wrong Stock Pulled							
	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misaligned/off center	<input type="checkbox"/> Positioned Wrong								
	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Power Loss/Surge								
	<input type="checkbox"/> Drawing	<input type="checkbox"/> Misread									
	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Off-set									
	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Calibration									
	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Out of Sequence									

Picklist Print

June-12-13 9:16:50 AM

Page 1

Work Order ID: 102924

Parent Item: 647.9413

Parent Item Name: Deflector Lower, Half

Start Date: 6/11/13

Required Date: 6/11/13

Start Qty: 44.00

Required Qty: 44.00

Comments: IPP REV: A NEW ISSUE JFS 13/05/02 VERIFY BY: JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M17075T6B2.250X02.750 7075-T6 BAR 2.250" X 2.750"		Purchased	No			100	f	13.1600	2.303	106.66526 119.708			

Location	Loc Qty	Loc Code
MAT006	13.16	
123418	8	
123555	5.16	
126133		

4.604 ft
115.104 ft

B-1
12-06/26/13

* Mat not pulled

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Work Order: _____	DISPOSITION			AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General			
	<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Folio/Program	<input type="checkbox"/> Outside Dimensions
	<input type="checkbox"/> Centre Not Concentric	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain	<input type="checkbox"/> Pressure/Forced
	<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Hardware	<input type="checkbox"/> Set-up
	<input type="checkbox"/> Crimp/Kink/Ripple/Wave	<input type="checkbox"/> Burrs	<input type="checkbox"/> Inspection Incomplete/Unqualified	<input type="checkbox"/> Temperature/Cure
	<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Weld
	<input type="checkbox"/> Crushing	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misaligned/off center	<input type="checkbox"/> Wrong Stock Pulled
	<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Other
	<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Drawing	<input type="checkbox"/> Misread	
	<input type="checkbox"/> Marks/Chatter	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Off-set	
	<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Calibration	
	<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Out of Sequence	

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03762				SHEET 1 OF 1		
	DWG NO. 647.9400		REV: A	PREPARED BY B. PETERS	DATE: 01/07/13		EFFECT ON DWG <input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.
	DWG TITLE: DEFLECTORS						
	APPROVED BY:	ENGR: <i>Blair</i>	MFG: <i>David Buban</i>	QC: <i>ES</i>	EFF: NEXT ORDER		
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE	REASON: REVISED HOLE DIAMETER TO REFLECT PIN DIAMETER IN NEXT ASSY.						

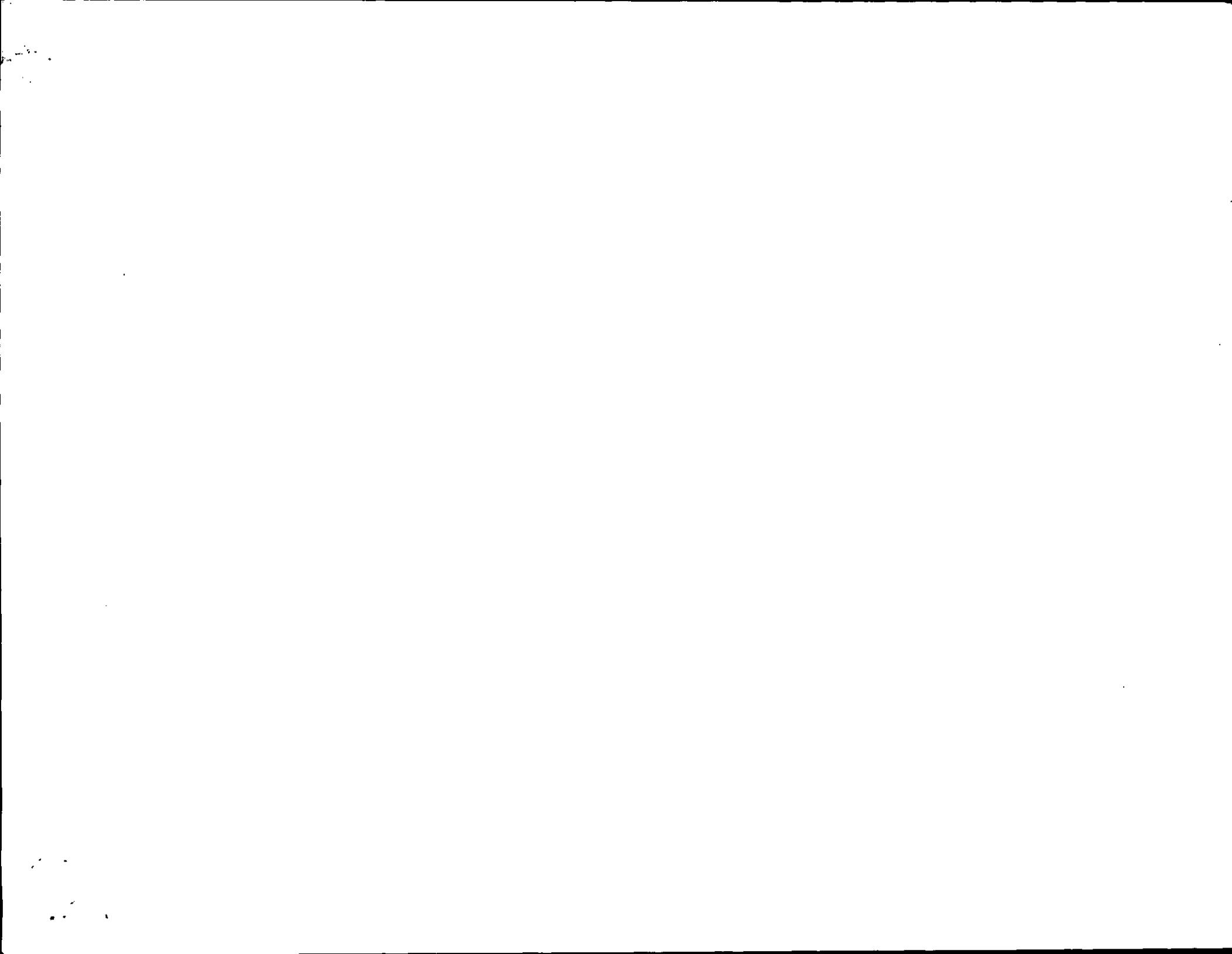
TAG	X LOC	Y LOC	SIZE
A1	-8.949	-4.066	$\emptyset .201$
A2	-6.172	-3.562	$\emptyset .201$
B1	-7.903	-5.121	$\emptyset .253$
C1	-5.978	-.267	$\emptyset .165$
C2	-3.863	-.267	$\emptyset .165$
C3	-1.758	-.267	$\emptyset .165$
D1	-5.159	-2.500	$\emptyset .250$

IS

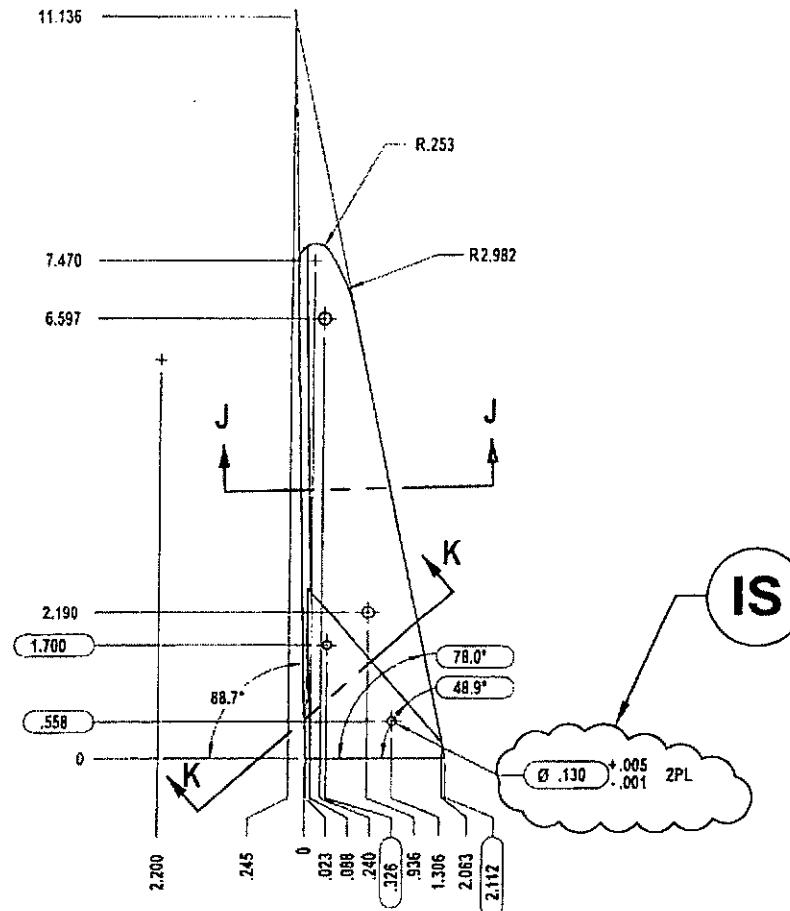
102924 MWS
13-06-13

SHEET 9, ZONE C8 IS:

DOCUMENTS EFFECTED:	<input type="checkbox"/> RFMS <input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRUC <input type="checkbox"/> ICA <input type="checkbox"/> BOM	CHANGE CATEGORY <input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	DER REVIEW REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
---------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------

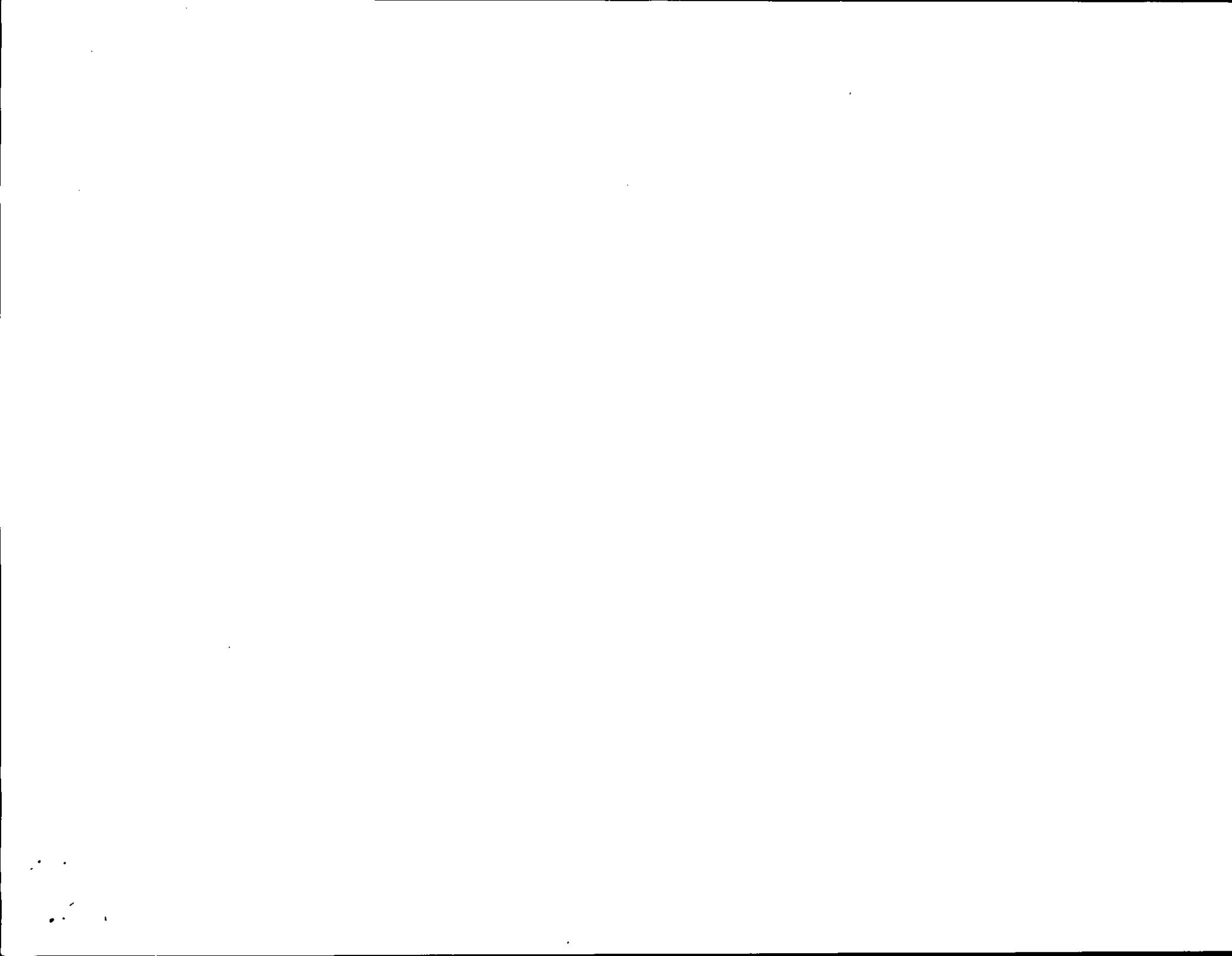


APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03739				SHEET 1 OF 1		
	DWG NO. 647.9400		REV: A	PREPARED BY B. PETERS	DATE: 12/07/12		EFFECT ON DWG
							<input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.
	DWG TITLE: DEFLECTORS						
	APPROVED BY:	ENGR: <i>J. B. am</i>	MFG: <i>David Barber</i>	QC: <i>J. B. am</i>	EFF: NEXT ORDER		
	TRANSACTION CODES (TC) A-ADD C-CREATE R-REVISE D-DELETE	REASON: REVISED TOLERANCE ON HOLE DIAMETER TO REFLECT RIVET DIAMETER.					



SHEET 8, ZONE D4 IS:

DOCUMENTS EFFECTED:	<input type="checkbox"/> RFMS <input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRUC	<input type="checkbox"/> ICA <input type="checkbox"/> BOM	CHANGE CATEGORY	DER REVIEW REQUIRED
	<input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	



102924

NOTES: UNLESS OTHERWISE SPECIFIED

1) MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12. AMS-QQ-A-200/11 IS AN ACCEPTABLE ALTERNATIVE.

2) FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK;

3. DE BURR AND BREAK ALL SHARP EDGES.

4. IDENTIFY IAW MPP-120. LASER ETCH P/N AND REVISION. 12 PT. CENTURY GOTHIC.

5. ALL DIMENSIONS SHOWN PRIOR TO FINISH.

6) APPLY F/N 17 TO FAYING SURFACES.

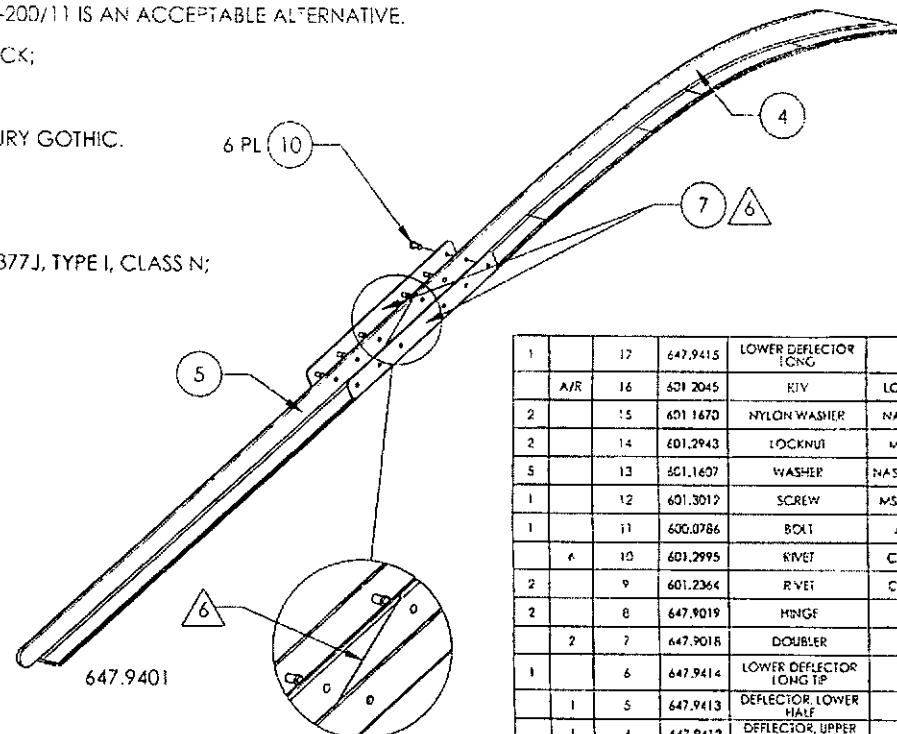
7) FINISH: PRETREAT PR-148 ADHESION PROMOTER, PRIME IAW MIL-P-23377J, TYPE I, CLASS N; 1-2 MIL MAX. APPLY FINISH AFTER ASSEMBLY.

8) TORQUE 15-20 IN.-LBS.

9) DIMENSION SHOWN IS FOR INSPECTION AFTER FINISHING.

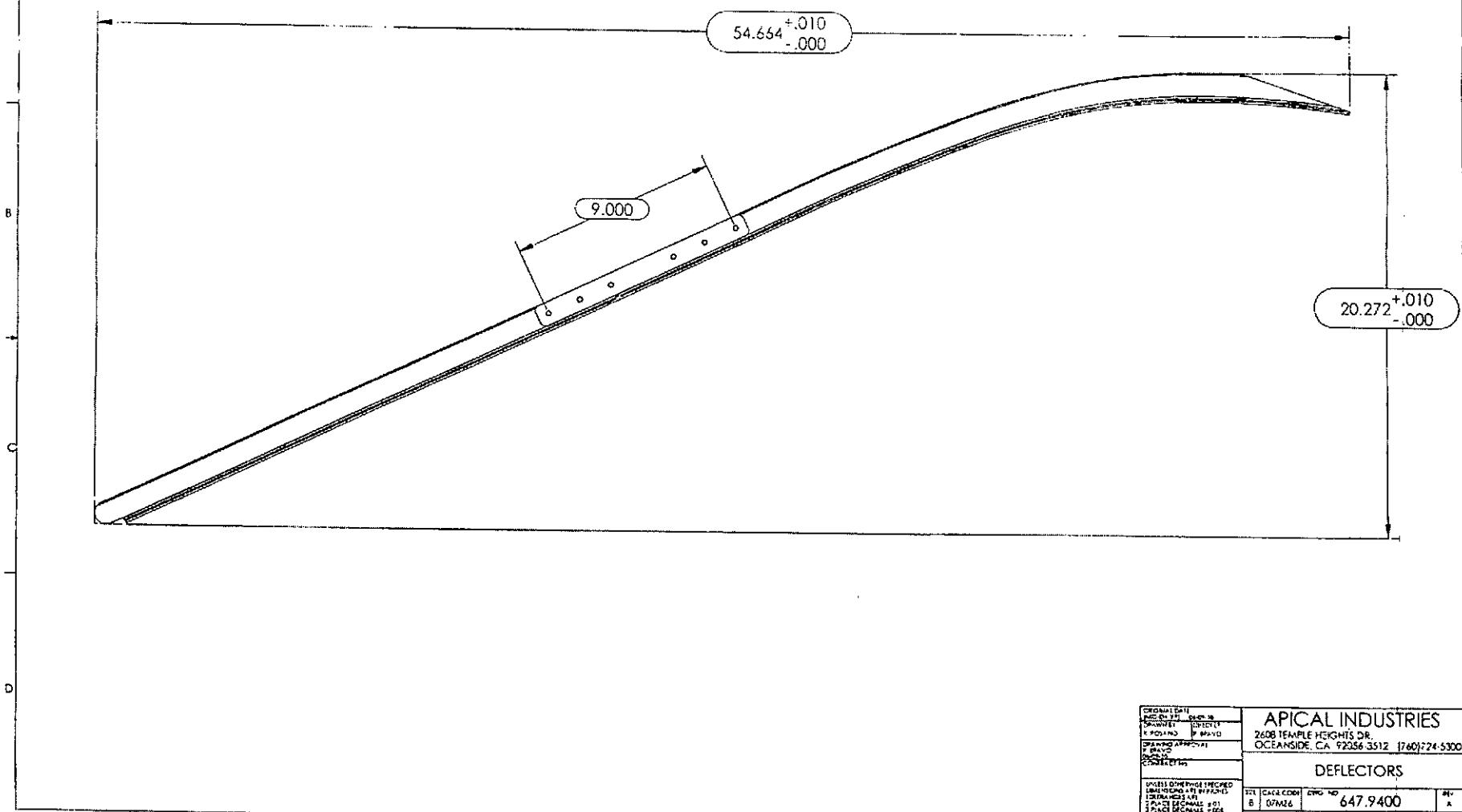
UNINCORPORATED ECN(s)

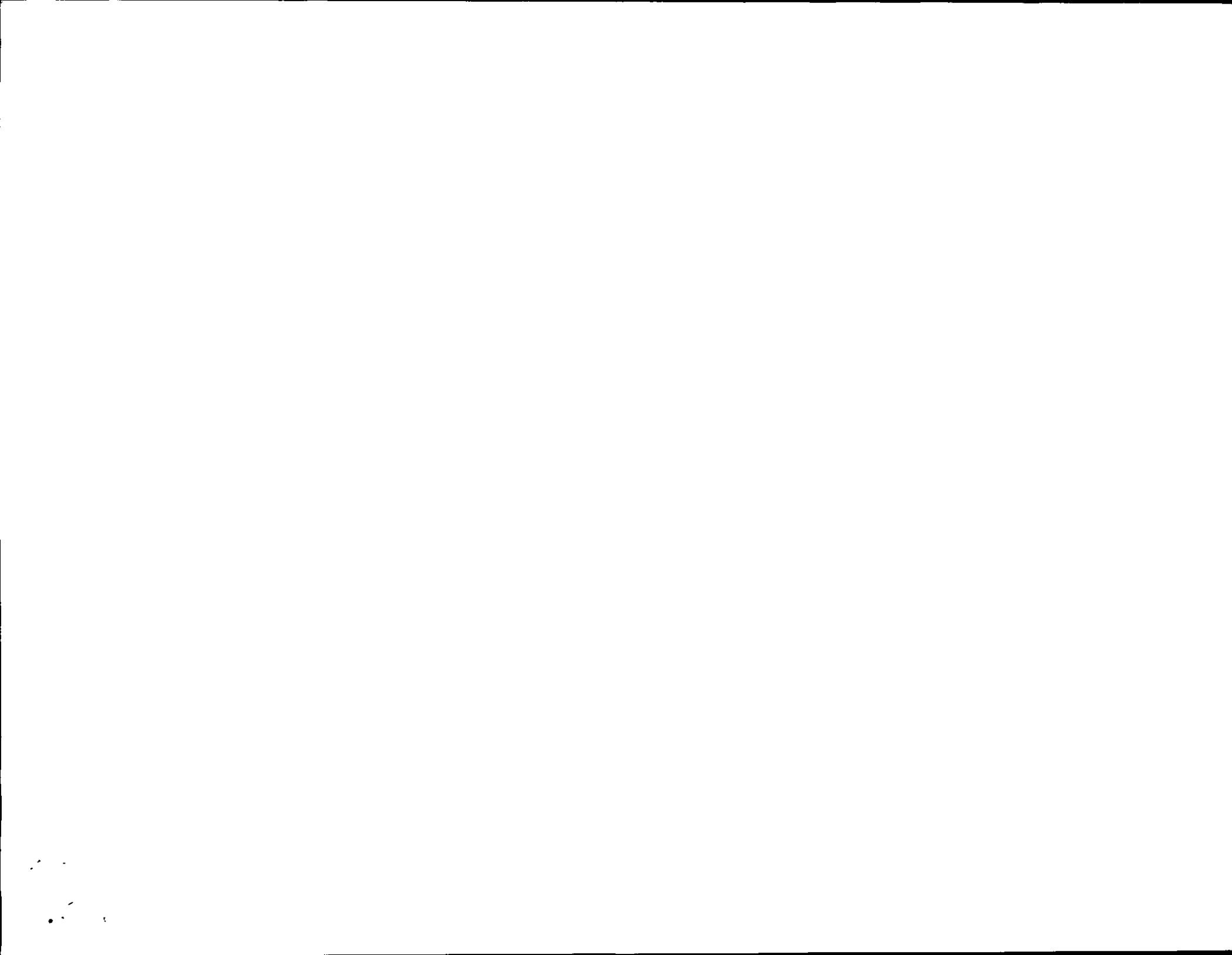
03739



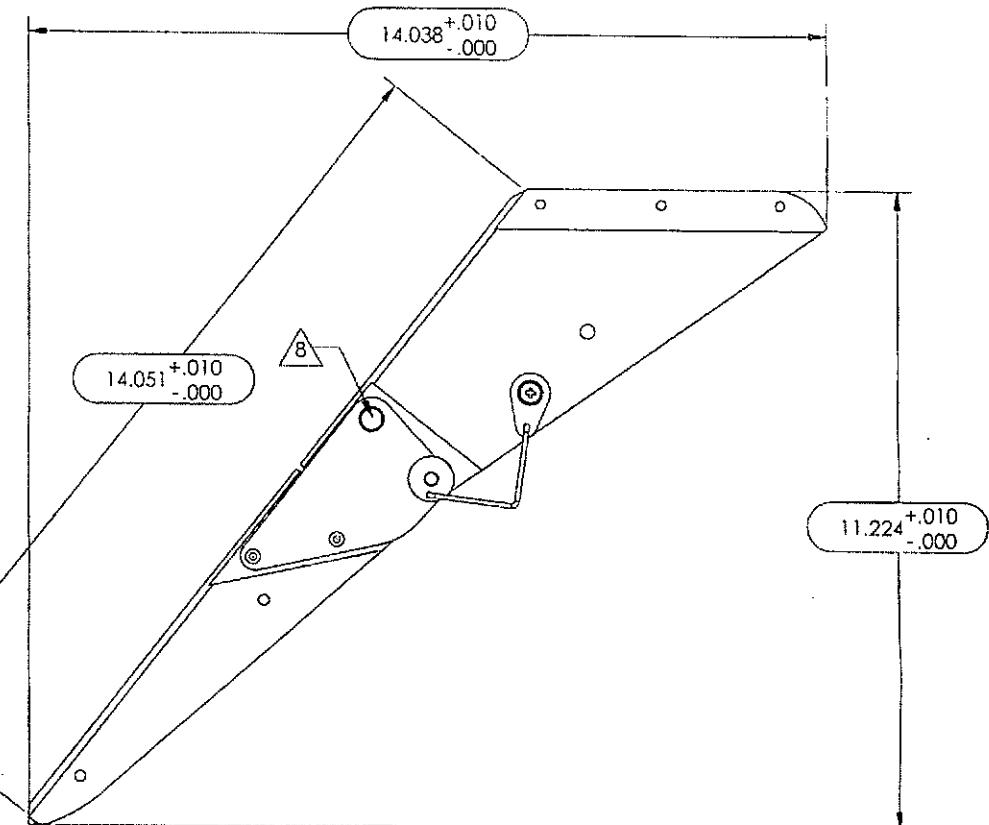
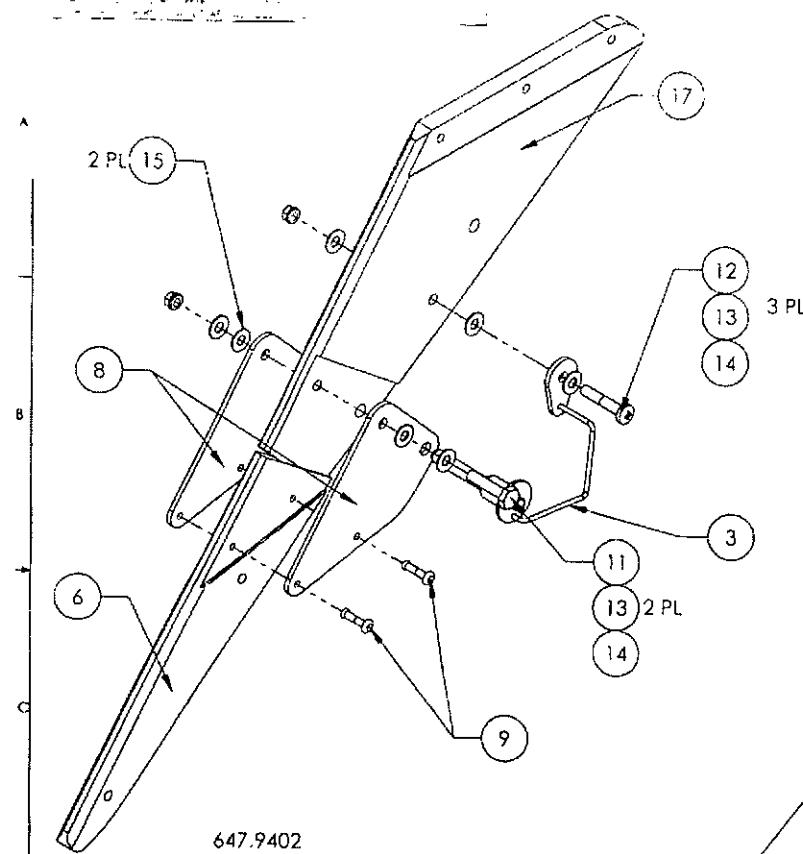
1	12	647.9415	LOWER DEFLECTOR LONG	
A/R	16	601.2045	RIV	LOCTITE 596
2	15	601.1670	NYLON WASHER	NAS151SH3L
2	14	601.2943	LOCKNUT	MS21042-3
5	13	601.1607	WASHER	NAS114P0332P
1	12	601.3012	SCREW	MS20391-1-15
1	11	600.0786	BOLT	AN3C7A
6	10	601.2995	RIVET	CR3213-6-6
2	9	601.2364	RIVET	CR3213-4-8
2	8	647.9019	HNGF	
2	7	647.9018	DOUBLER	
1	6	647.9414	LOWER DEFLECTOR LONG TIP	▲ ▲ ▲
1	5	647.9413	DEFLECTOR, LOWER HALF	▲ ▲
1	4	647.9412	DEFLECTOR, UPPER HALF	▲ ▲
1	3	647.9501	QUICK RELEASE PIN ASSY	
	2	647.9411	UPPER DEFLECTOR	▲ ▲ ▲ ▲
	1	647.9410	LOWER DEFLECTOR	▲ ▲ ▲ ▲
		647.9402	LOWER DEFLECTOR LONG ASSY	
		647.9401	DEFLECTOR ASSY	▲
P402	9401	FIND #	PART #	DESCRIPTION
				MATL. SPEC.
QTY				PARTS LIST
NEXT ASSY IS:				
647.8900				
647.9200				
DEFLECTOR ASSY UPPER DEFLECTOR LOWER DEFLECTOR QUICK RELEASE PIN CONTRACTOR				
12	647.9400	647.9400	647.9400	647.9400
3	647.9401	647.9401	647.9401	647.9401
3	647.9402	647.9402	647.9402	647.9402
1	647.9403	647.9403	647.9403	647.9403
DEFLECTORS				
12	CASE FLOOR	647.9400	647.9400	647.9400
3	DMW6			
3	DMW6			
1	SCALE NONE			
				SHFT 1 OF 4

102924





102924

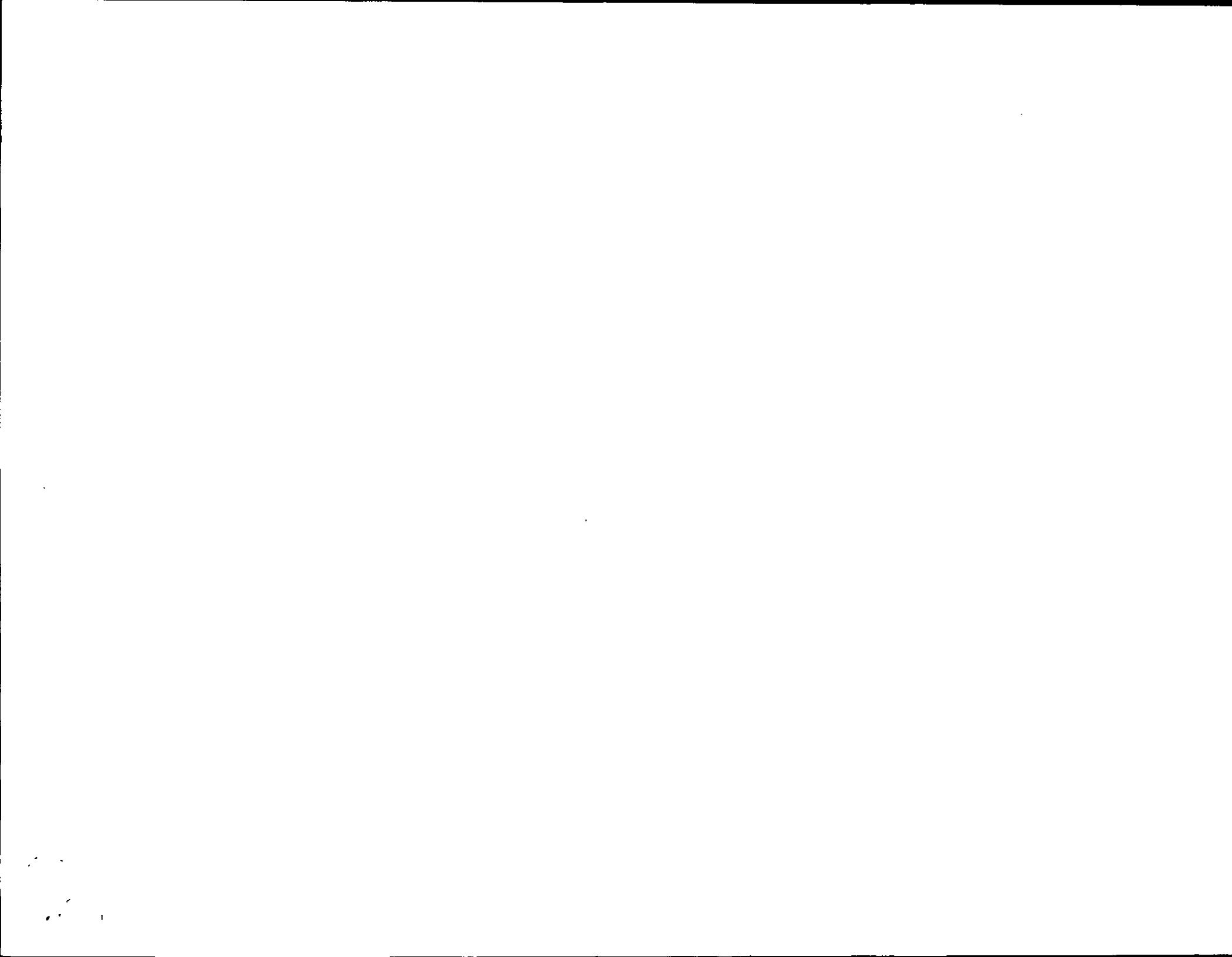


SEARCHED	INDEXED	SERIALIZED	FILED
APR 10 1987	1987	1987	1987
DEPARTMENT OF DEFENSE	DEFENSE	DEFENSE	DEFENSE
STANAG APPROVAL	STANAG	STANAG	STANAG
STANAG	STANAG	STANAG	STANAG
SEARCHED	INDEXED	SERIALIZED	FILED
APR 10 1987	1987	1987	1987
DEPARTMENT OF DEFENSE	DEFENSE	DEFENSE	DEFENSE
STANAG APPROVAL	STANAG	STANAG	STANAG
STANAG	STANAG	STANAG	STANAG

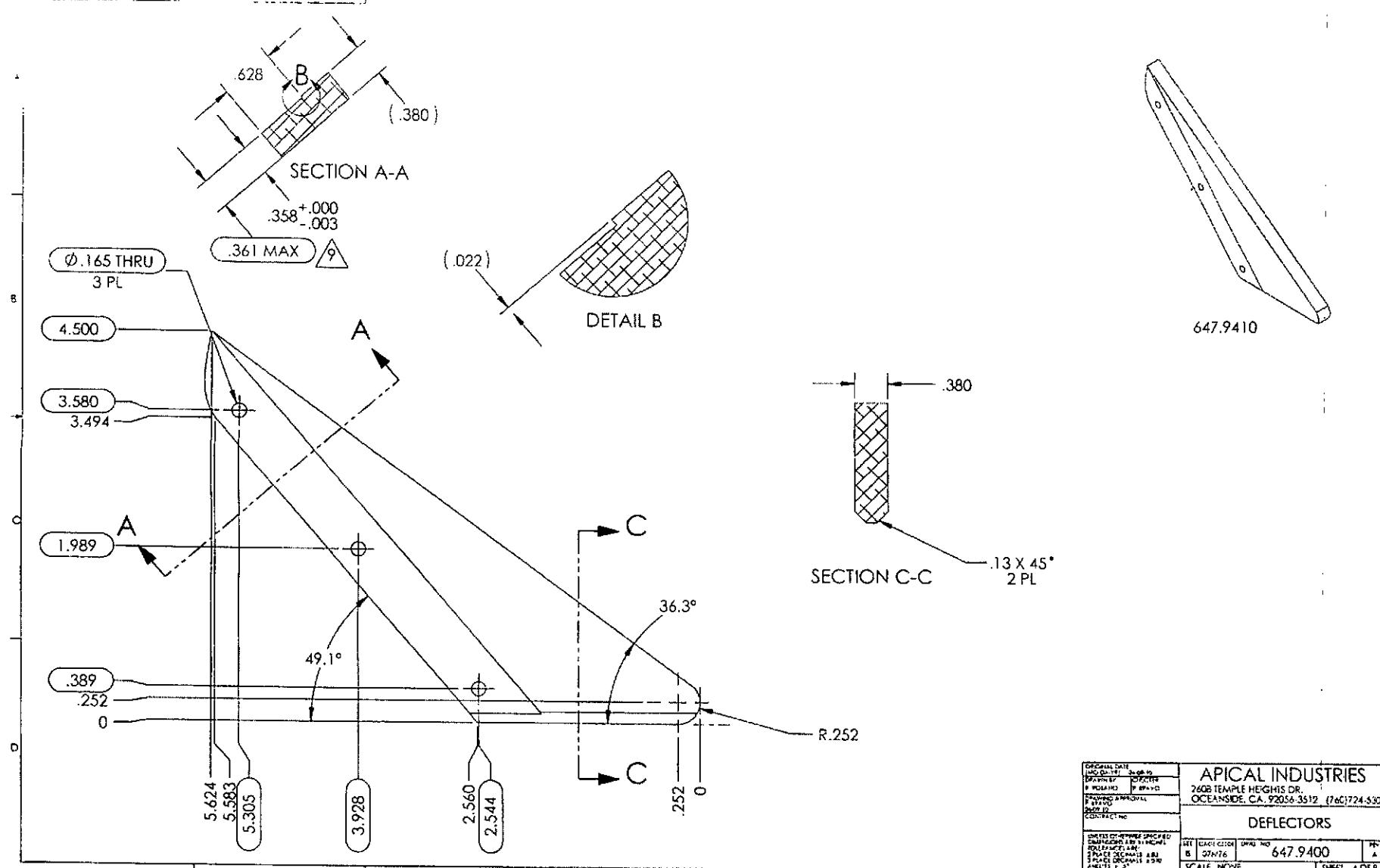
APICAL INDUSTRIES
2408 TEMPLE HEG-15 DR.
OCEANSIDE, CA. 92056-3512 (760)724 5300

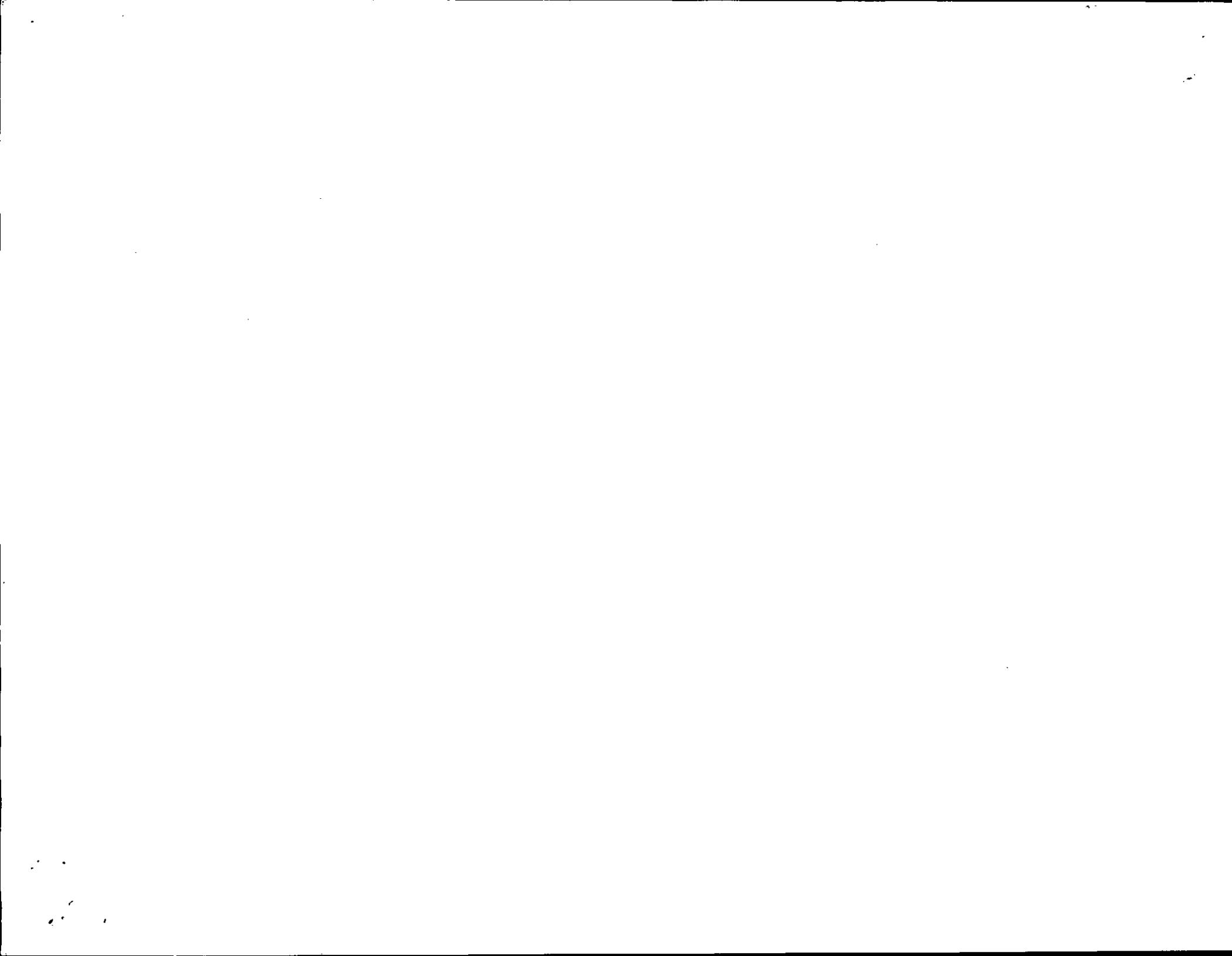
DEFLECTORS

UNITED STATES SPECIFIED	SEARCHED	SERIALIZED	FILED
DEFLECTOR	APR 10 1987	1987	1987
STANAG APPROVAL	STANAG	STANAG	STANAG
STANAG	STANAG	STANAG	STANAG
SEARCHED	INDEXED	SERIALIZED	FILED
APR 10 1987	1987	1987	1987
DEPARTMENT OF DEFENSE	DEFENSE	DEFENSE	DEFENSE
STANAG APPROVAL	STANAG	STANAG	STANAG
STANAG	STANAG	STANAG	STANAG

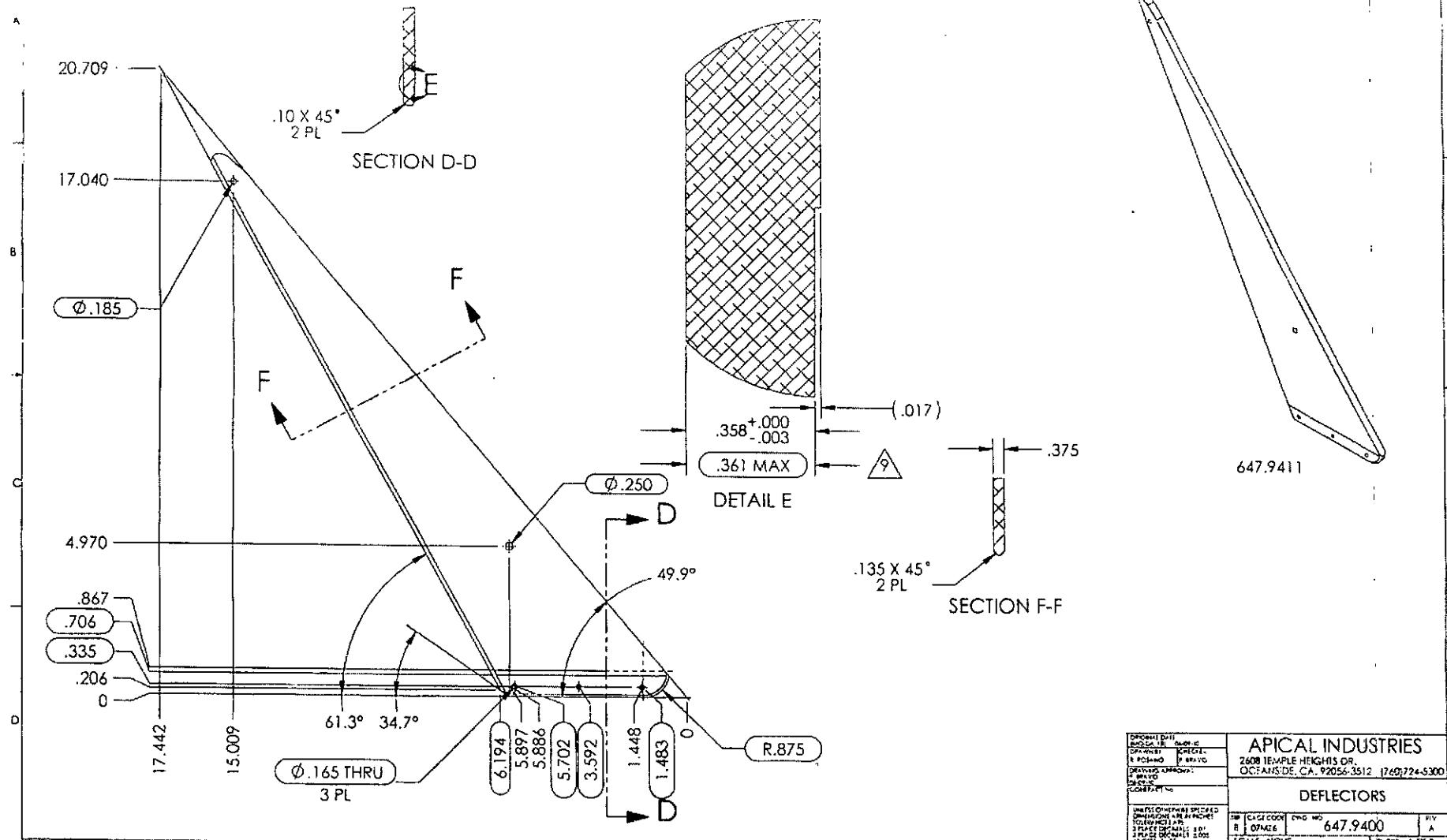


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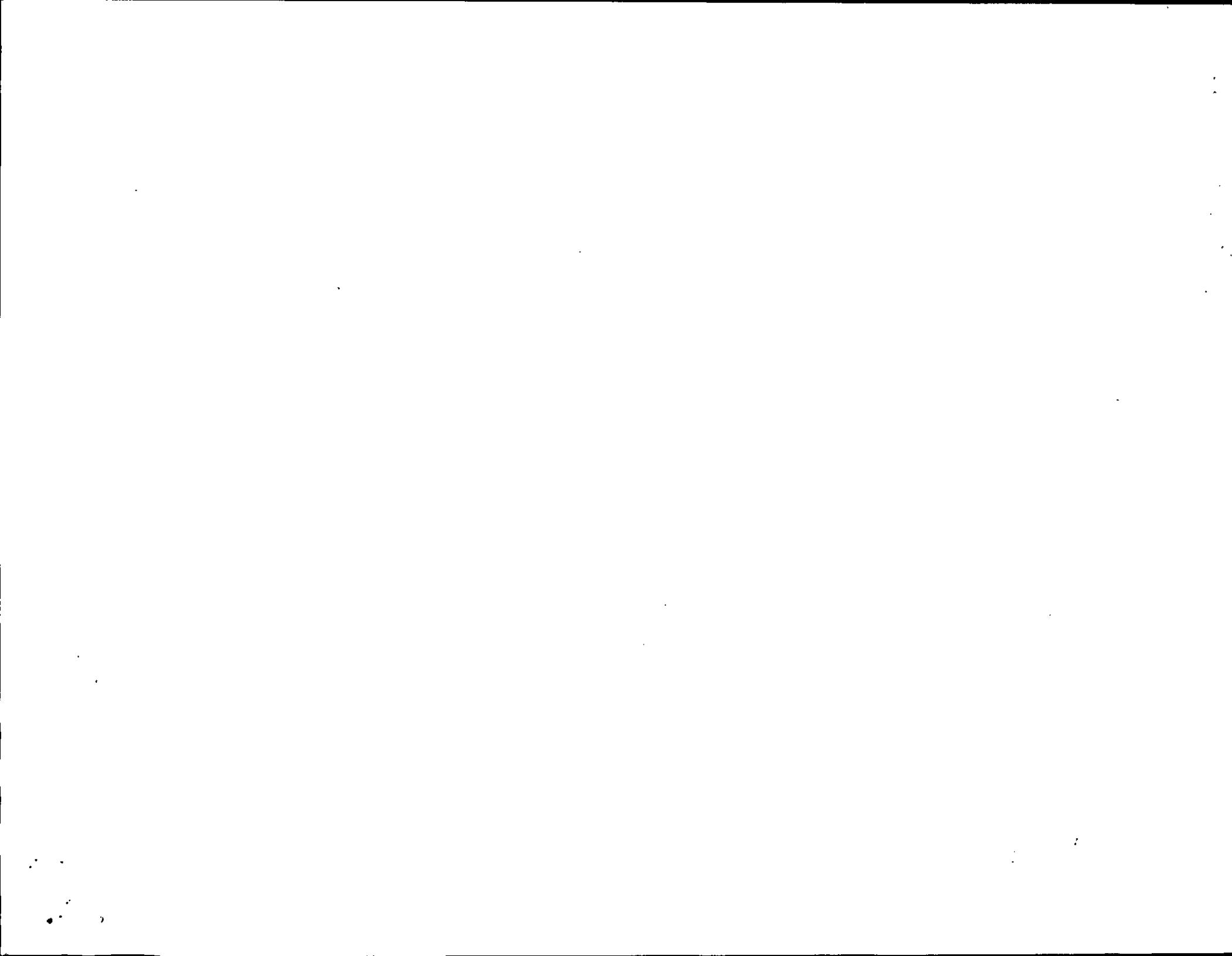




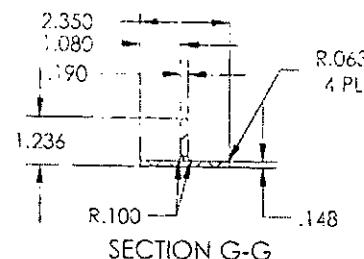
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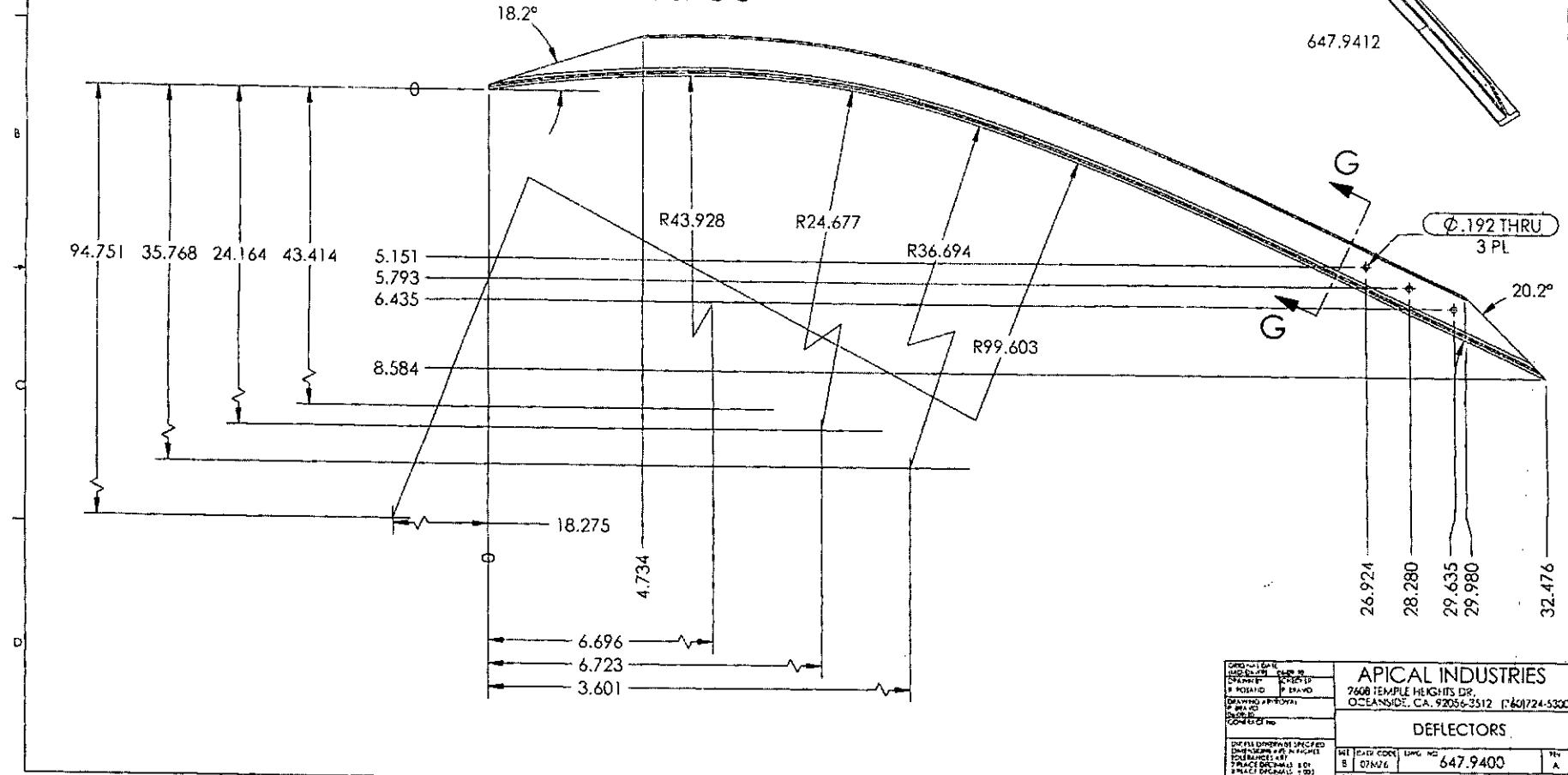
DRAWN BY	APICAL INDUSTRIES
DESIGNED BY	2600 TEMPLE HEIGHTS DR.
APPROVED BY	OCEANSIDE, CA. 92054-3512 17491724-5300
APPROVED BY	
CONTRACT NO.	
UNLESS OTHERWISE SPECIFIED	
DIMENSIONS ARE IN INCHES	
STOCK DETAILS: 10"	
WEIGHT: 2.2	
SCALE: NONE	
DATE: 07/16	
CAGE CODE: 647.9400	
ENG. NO.:	
REV. A	
Sheet 3 of 9	



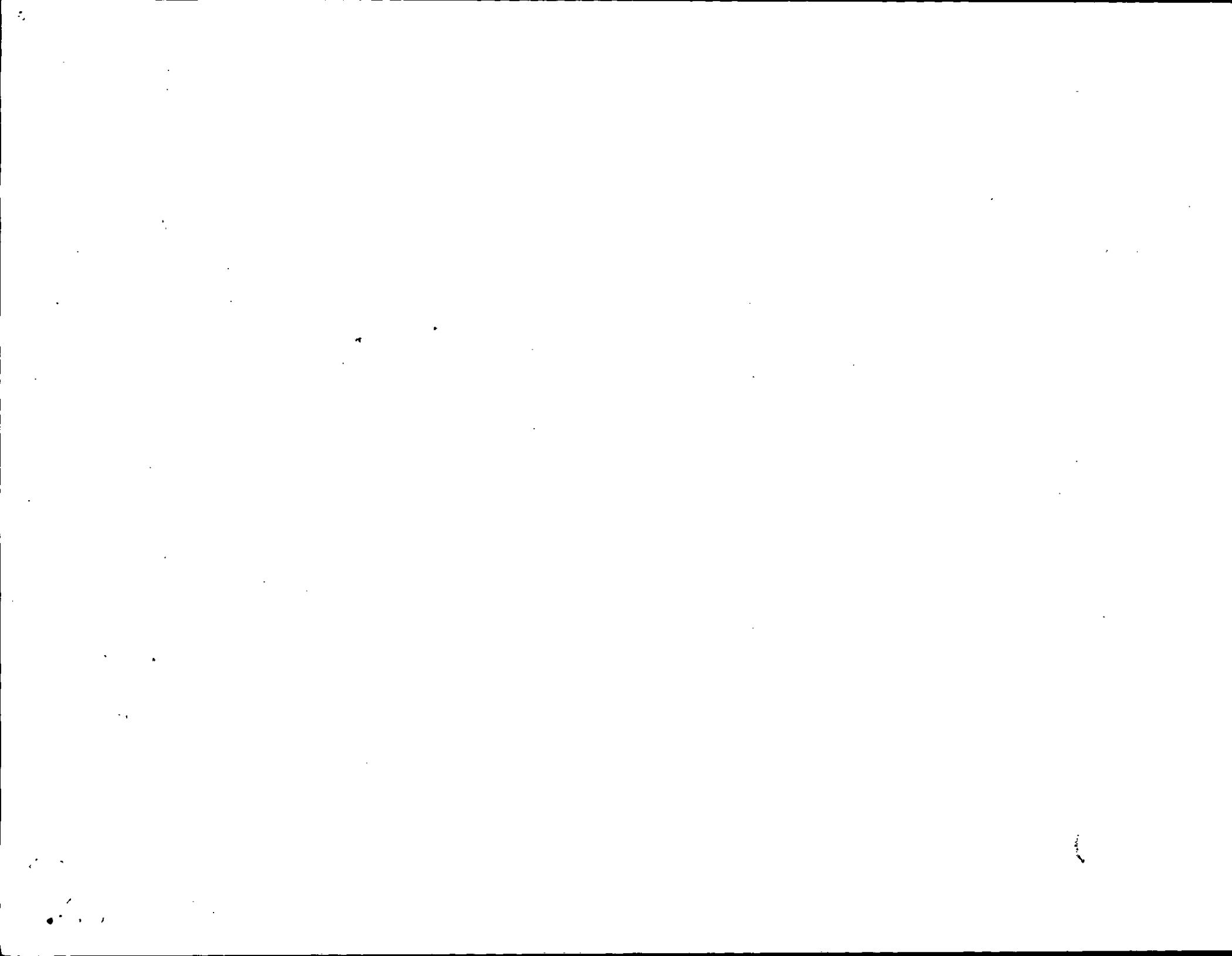
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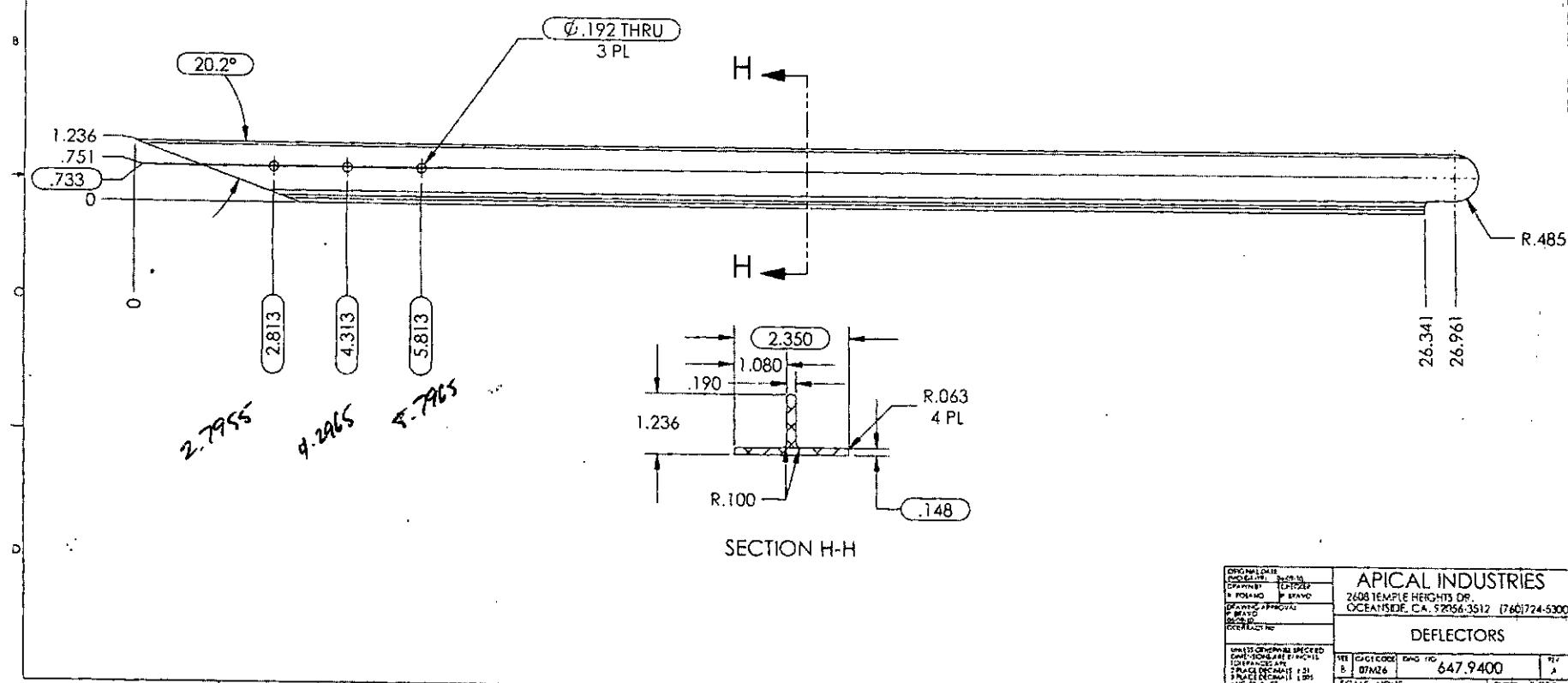
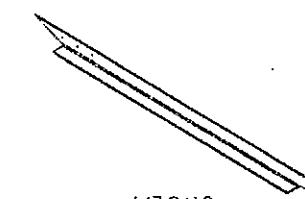
SECTION G-G



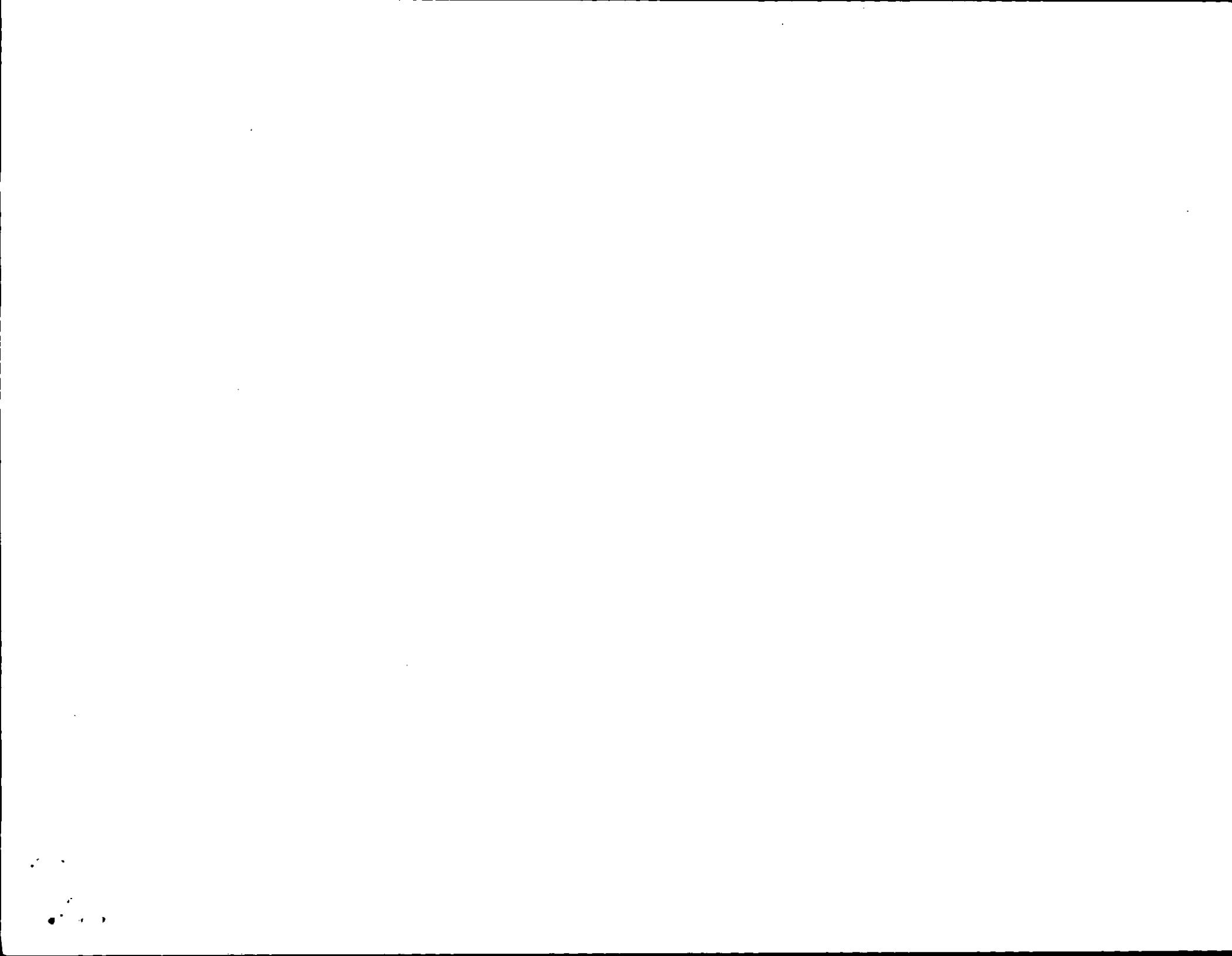
APICAL INDUSTRIES	7600 TEMPLE HEIGHTS DR.	OCEANSIDE, CA 92056-3512	TEL 724-5300
DEFLECTORS			
DEFLECTIONS OF SPECIFIED STRUCTURES IN INCHES	WT	CAT. CODE	LMG NO.
STRUCTURE NO. 101 TRACE DEFLECTOR 101 ANCHOR 7-3	B	07M26	647.9400
		SCALE NONE	Sheet 6 of 9

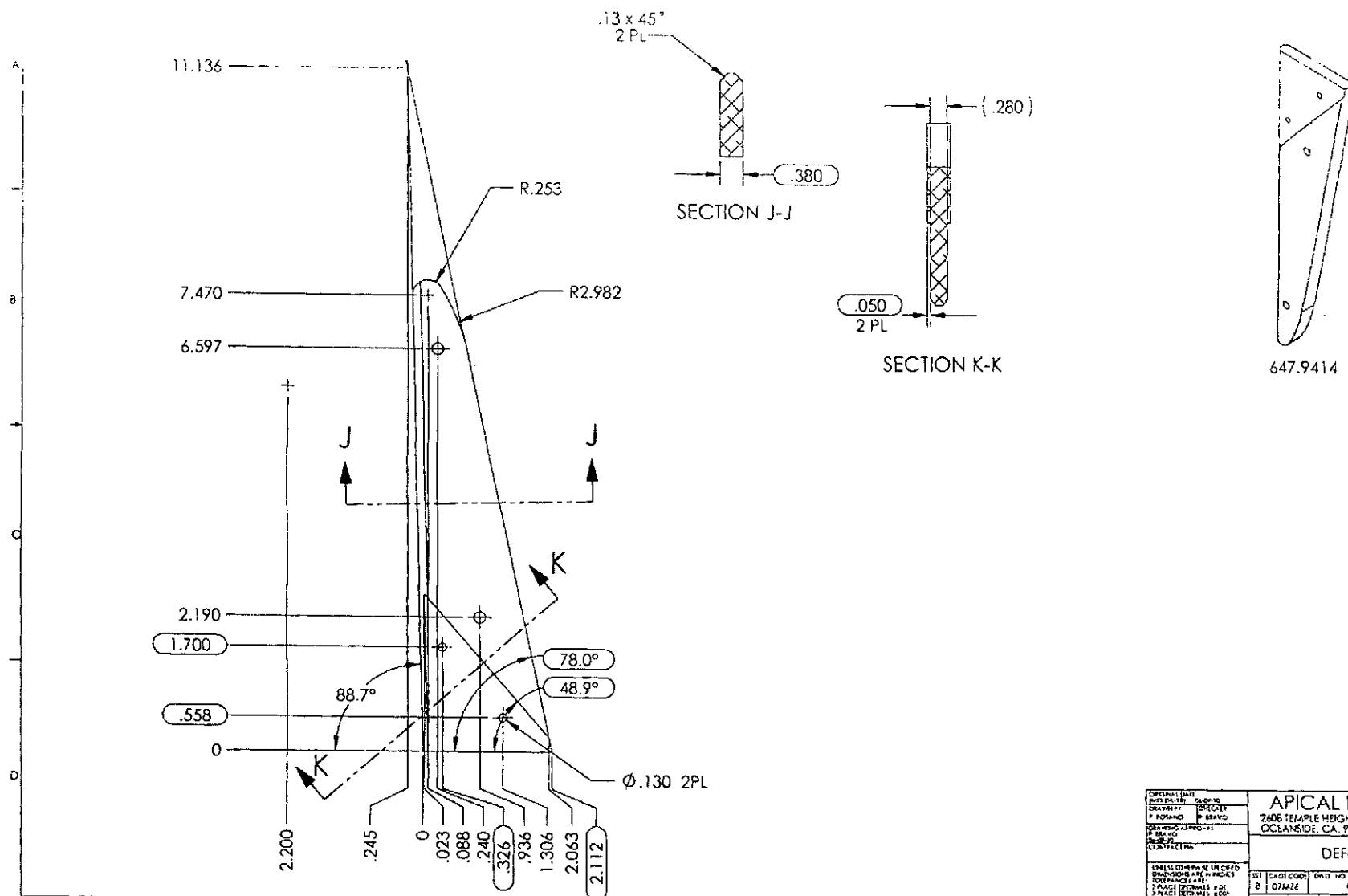


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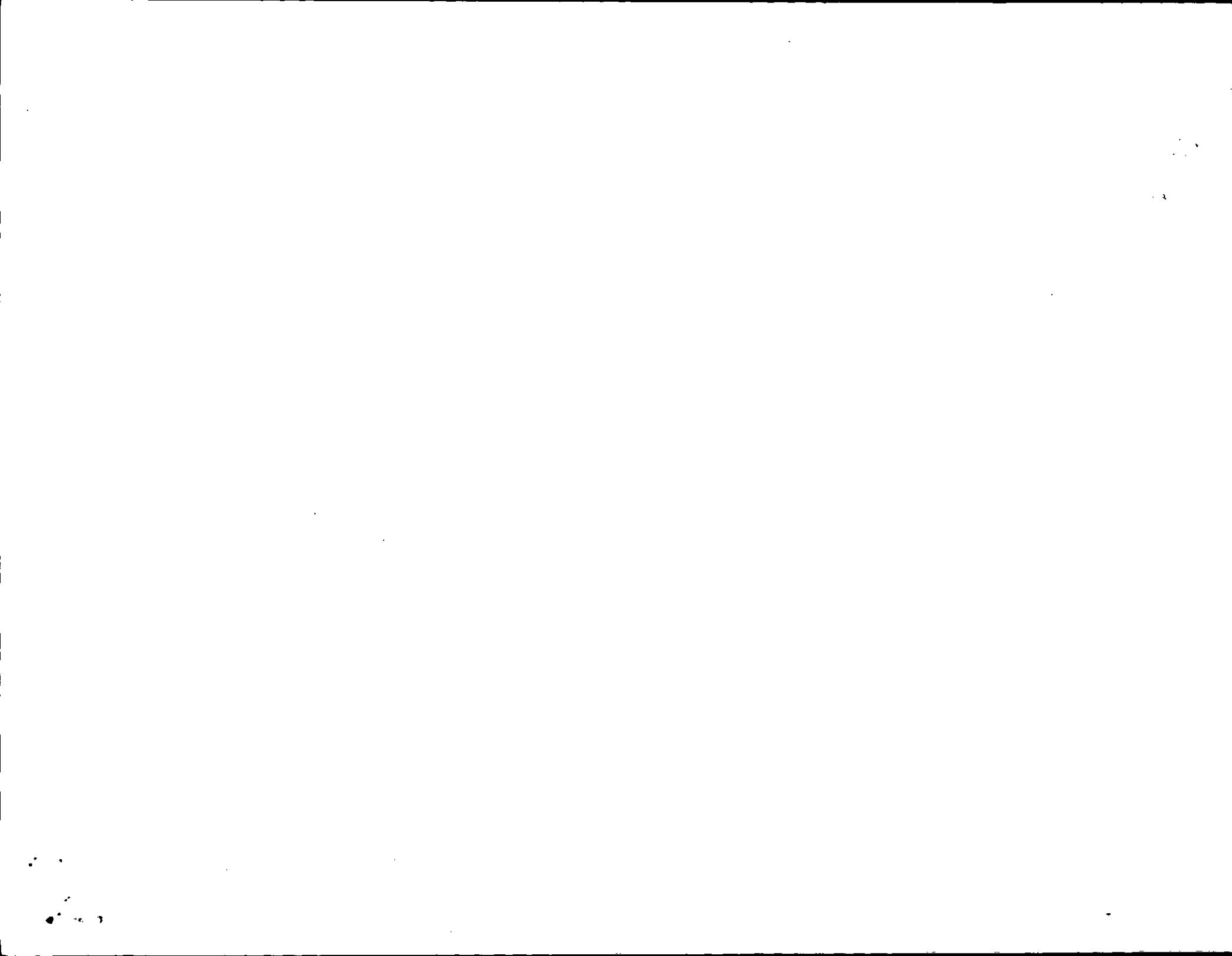


APICAL INDUSTRIES
2600 TEMPLE HEIGHTS DR
OCEANSIDE, CA. 92056-3512 (760)724-5300
DEFLECTORS
ITEM: 647.9400
DATE: 07/26
SCALE: NONE

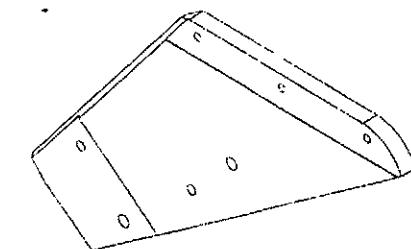
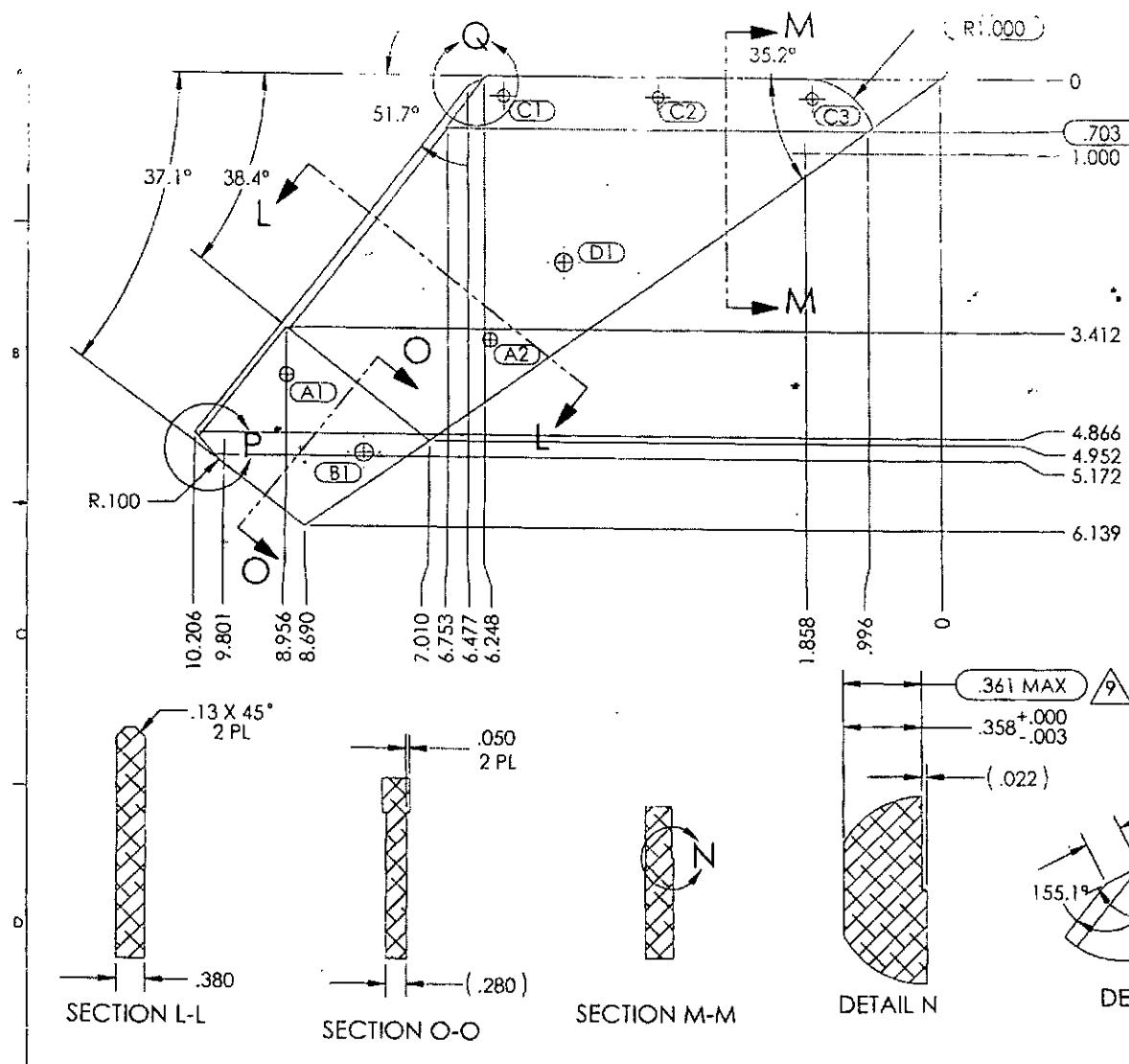




APICAL INDUSTRIES	2608 TEMPLE HEIGHTS DR.	OCEANSIDE, CA. 92054-3512	17601724-5300
DEFLECTORS			
ITEM	QTY	ITEM NO.	
B	1	CAST COOP	647.9400
B	1	DMZEE	
SCALE	NONE	Sheet	3 of 5



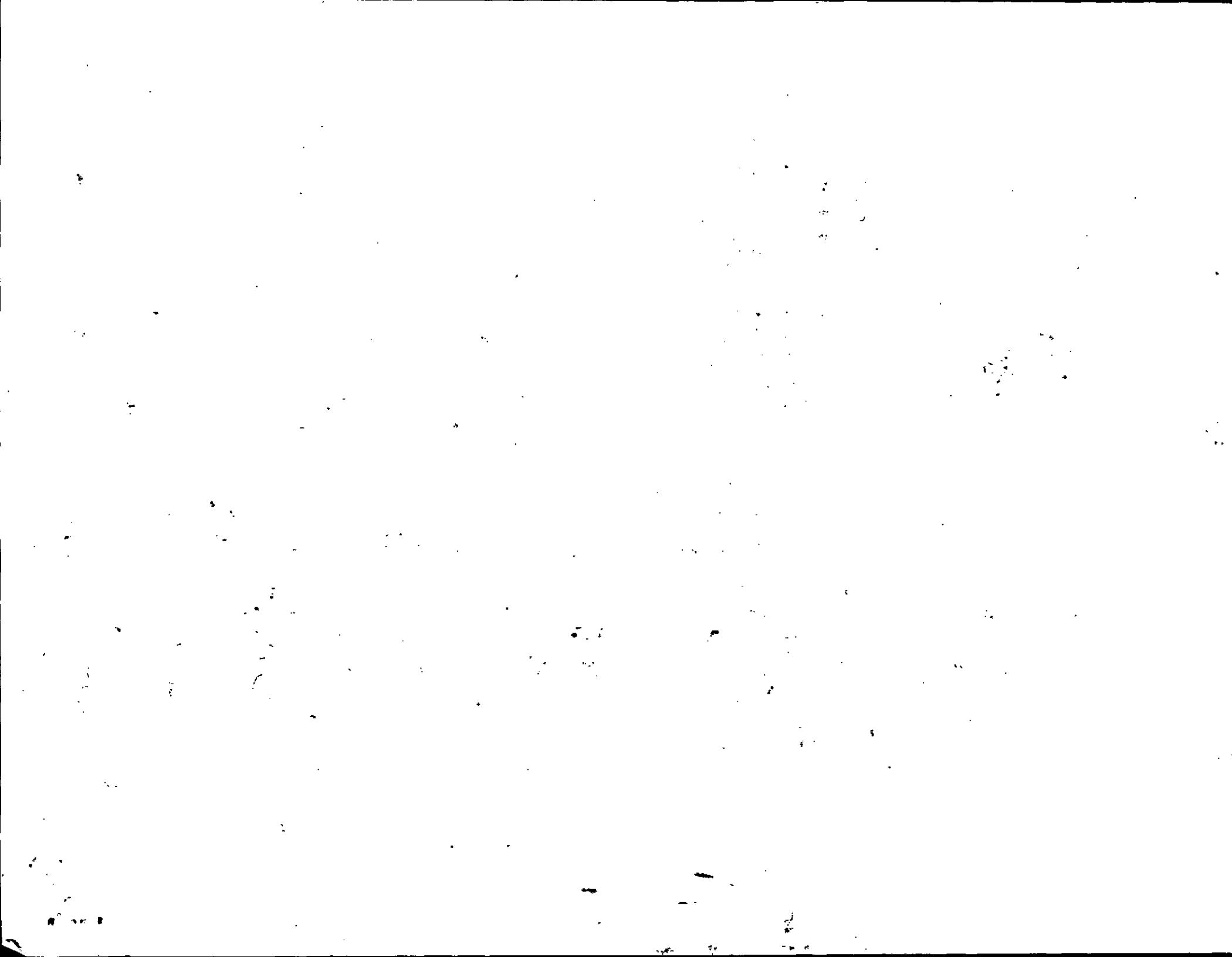
102924



647.9415

TAG	X LOC	Y LOC	SIZE
A1	-8.949	-4.066	Ø .201
A2	-6.172	-3.562	Ø .201
B1	-7.903	-5.121	Ø .250
C1	-5.978	-.267	Ø .165
C2	-3.863	-.267	Ø .165
C3	-1.758	-.267	Ø .165
D1	-5.159	-2.500	Ø .250

DRAWN BY	SP 10	APICAL INDUSTRIES
CHECKED BY	10-2012	2608 TEMPLE HEIGHTS DR.
REVIEWED BY	10-2012	OCEANSIDE, CA, 92054-3512 (760)724-5300
DRAWN APPROVAL		
DATE 10/12/12		
DEFLECTORS		
PRINTED ON 10/12/12 10:21 AM		
PRINTED ON 10/12/12 10:21 AM		
RE	CDL/COR	EDG NO
8	071426	647.9400
SCALE NONE		
1 SHEET 9 OF 9		





Engineering Change Request (ECR)

ECR# (Assigned by Engineering Dept.): D-13-031

Employee or Customer Name: JEAN-LUC MENARD

Department or Company Name: DAS Production

Department or Company Phone/Fax/Email: jmenard@dartaero.com

Date: APRIL 15TH 2013

Subject Drawing/Document: 647.9412/9413

Problem:

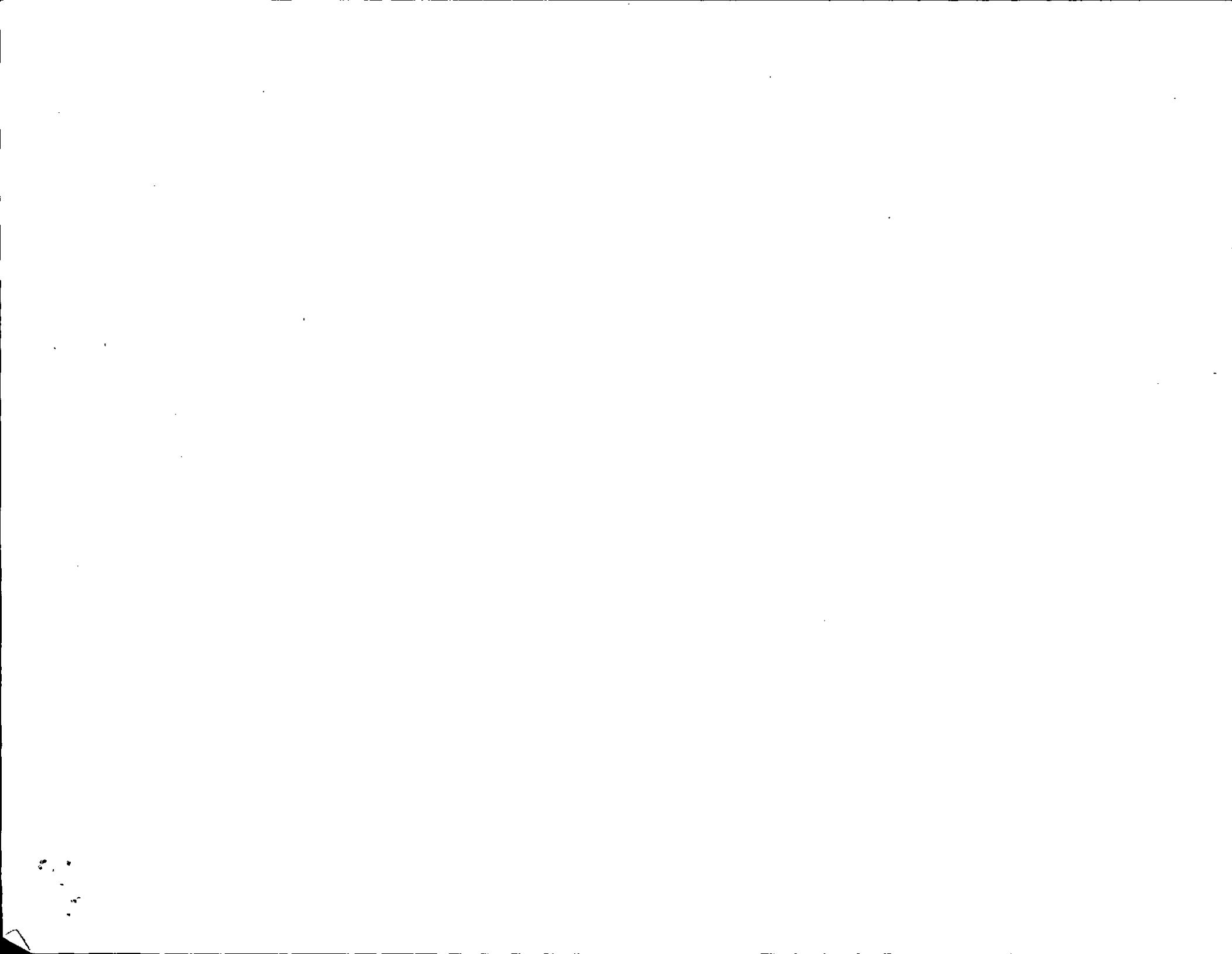
Change corner Radius to .125"(Standard),open tolerance to +/- .010 or greater,add option for .0625" rad or chamfer

Additional Comments/Clarification:

Engineering Liaison Representative (If applicable):

ECR Approval (Director of Engineering, Director of Operations, Manufacturing Manager or QC Manager):

ECN # (if applicable):



DART AEROSPACE LTD	Work Order:	102924
Description: Deflector Lower, Half.	Part Number:	647.9413
Inspection Dwg: 647.9400 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

reference
on ECR
last page
attached
to w/b

Measured by:	J.A	DAS	Audited by:	RP	Preliminary Approval:	
Date:	13/07/09	0.83	Date:	13.7.15	Date:	

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

10.06.15



A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada
Ph: (613) 446-4544
Fax: (613) 446-4556

Pack List

Number: 62583

Date: 22-Aug-13

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms	Ship Via
Quantity	Description
1 lot	Part: ASST 20 PCS 646.3513 PRIME MIL-P-23377J TYPE I CLASS N 52 PCS 647.9413 HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME MIL-P-23377J TYPE I CLASS N Job: 20130532 PO: 20678
	Rev: Line:
<p>Certificate of Conformance</p> <p>A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.</p> <p>ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY</p> <p>DATE: <u>22/8/13</u></p> <p>CERTIFIED SIGNATURE: <u>M</u></p> <p>RECEIVER SIGNATURE: _____</p>	

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO20678**

Purchase Order Date 7/24/2013
PO Print Date 8/23/2013

Page Number 4 of 4

Ship From :
A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

VC-ATG001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 613-446-4544

Buyer Brigitte Golden

Ship To Contact

Ship To Phone

Ship Via: Yours ppd

Ship Acct:

Customer POID

Customer Tax # 10127-2607

Terms Net 30

Currency CAD

FOB Destination-Collect

13	102787	647.9412 UPPER DEFLECTOR	8/2/2013	52.00	\$0.00	\$0.00
			Yes			
SAME AS ABOVE			8/2/2013			

Line Total: \$0.0

14	102924	647.9413 DEFLECTOR LOWER HALF	8/2/2013	52.00	\$16.34	\$849.6
			Yes			
SAME AS ABOVE			8/2/2013			

SP 13-8-23

Line Total: \$849.6

PO Total: \$2,009.1

Note: Pricing listed above is as per contract agreement between Dart Aerospace and the respective manufacturer.
No substitution or deviation without consent.
Certificate of Conformity or Material Certification required - YES NO
PST# 6122-5207

Change Nbr: 5 Change Date: 8/23/2013

